

R E M A R K S

This is in response to the Office Action that was mailed on December 19, 2002. Claim 1 is incorporated to incorporate recitations from original claim 2. New claim 10 is based upon original claims 1 and 2. Claim 2 is cancelled, without prejudice to its subject matter. New claims 8 and 9 are based upon Examples 1 and 3, respectively. New claims 11-15 correspond to original claims 3-7, respectively. New claim 16 is based upon Example 2. No new matter has been introduced. Claims 1 and 3-16 are in the case.

Claims 1-7 were rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,733,995 (Kimura) in view of US 5,231,207 (Yanagisawa). The rejection is respectfully traversed.

The present invention provides room temperature curable organopolysiloxane compositions that can maintain adherence to glass even upon exposure to hot steam. In accordance with the present invention, blending a specific silane compound of the general formula (3) into a room temperature curable organopolysiloxane composition dramatically improves the adherence of the composition to glass upon exposure to hot steam. This hot wet adhesion conventionally has been found to be difficult to maintain.

The compositions of the invention cure into silicone rubber, a rubber that is especially suited for use as sealants used in wet areas and in the bonding and securing of architectural parts and electrical and electronic parts which are to be exposed to water vapor. These advantageous features of the present invention are demonstrated in the working Examples herein.

Kimura (US 5,733,995) discloses a one-pack type room temperature curable organopolysiloxane composition for an automobile oil seal, which comprises (A) a diorganopolysiloxane having a viscosity at 25°C of 25 to

1,000,000 centistokes blocked with a hydroxyl group at both ends of its molecular chain; (B) an iminoxysilane represented by the formula $(R^1)_{4-n}Si[-O-N=C(R^1)_2]_n$ wherein the R^1 groups are the same or different and are unsubstituted or substituted monovalent saturated hydrocarbon groups and n is 3 or 4; (C) an amino group-containing hydrolysable silane represented by the formula $H_2N-R^2-NH-R^2-Si(-OR^3)_3$ wherein the R^2 groups are unsubstituted or substituted divalent saturated hydrocarbon groups having 1 to 4 carbon atoms and the R^3 groups are monovalent saturated hydrocarbon groups having 1 to 4 carbon atoms; and (D) a curing catalyst.

The Kimura reference fails to disclose or teach the use of silane compounds having at least two hydrolysable radicals selected from among alkoxy and isopropenoxy radicals, as recited in claims 1-9 herein. Kimura completely fails to teach or suggest the use of the organosilicon compound of component (C) of claims 1-9, which has a critical function of enhancing the adherence of the composition upon exposure to hot steam. Kimura is directed only to organopolysiloxane compositions useful as automobile oil seals, which maintain a low foamability when dispersed or dissolved in automobile oils. The Kimura reference fails to disclose or teach adhesive properties, much less adhesion upon exposure to hot steam.

Comparative Example 3 of the present specification uses $(CH_3O)_3Si-C_3H_6-NH-C_2H_4-NH_2$, which corresponds to the silane of formula (2) of Kimura. The presently claimed compositions are demonstrated to be unexpectedly superior thereto. In any case, Kimura fails to disclose a composition that comprises a combination of an alkoxysilyl end-blocked organopolysiloxane and a ketoximesilane as defined in claims 10-16. The composition of the present invention provides excellent adhesion upon exposure to hot steam. Kimura also fails to teach or suggest this beneficial feature of the present invention.

Accordingly, the present invention is neither anticipated nor rendered obvious by the Kimura reference.

Yanagisawa (US 5,231,207) discloses an organosilicon compound represented by the general formula $(R^1O)_mMe_{3-m}Si-R^2-NH-R^3-NH_2$ in which Me is a methyl group, R^1 is a methyl or ethyl group, R^2 is a divalent hydrocarbon group having 1 to 10 carbon atoms, R^3 is a divalent hydrocarbon group having 7 to 10 carbon atoms of which six carbon atoms jointly form a benzene ring, at least one of the nitrogen atoms in the amino and imino groups being not directly bonded to the carbon atom which is a member of the benzene ring, and the subscript m is 1, 2 or 3. The Yanagisawa reference discloses that the amino-containing organosilane compound can be useful as a coupling agent between inorganic and organic materials and that it imparts the final product with improved thermal stability and resistance against moisture.

However, Yanagisawa completely fails to disclose or teach the use of an organosilicon compound blended into a room temperature curable organopolysiloxane composition, much less any applications thereof. Kimura, as discussed above, is concerned only with compositions for automobile seals having a low foamability when dispersed in automobile oils. There is no disclosure in Kimura and Yanagisawa of adhesive properties in their compositions. Therefore, the person of ordinary skill in the art would not be motivated to combine the Kimura and the Yanagisawa references to obtain the organopolysiloxane compositions of the invention, which cure into silicone rubber having improved adherence upon exposure to hot steam and are useful for bonding and securing of architectural parts and electrical and electronic parts. Even if the Kimura and Yanagisawa references were combined, the composition obtained would only have a property of a low foamability dispersed in automobile oils.

Accordingly, the inventive composition defined in independent claim 1 as amended, as well as in new independent claim 16 -- and the benefits of remarkable adherence upon exposure to hot steam that the presently claimed compositions provide -- are not anticipated and are not even suggested by the cited references.

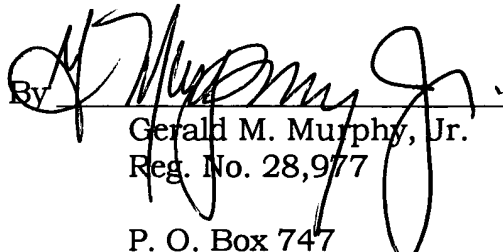
Conclusion

If the Examiner has any questions concerning this application, he is requested to contact Richard Gallagher, Reg. No. 28,781, at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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